

ABSTRACT OF THE DISCLOSURE

The present invention provides a pushback FIFO architecture that enables a value that has been unloaded from the FIFO to be pushed back into the FIFO at the beginning of the data stream if a determination is made that the data value should not have been unloaded from the FIFO. Therefore, the pushed back data value will be the first data value unloaded from the FIFO on the following read cycle. Because the data value that should not have been unloaded is not lost, and is placed at the beginning of the data value sequence, the pushback FIFO enables speculative unloads of data values from the FIFO to be performed.